



Planned approach to elaboration of methodology to monitor food waste

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Introduction

Food waste monitoring

- **Why to monitor?**
- **What to monitor?**
- **How to monitor?**

Why do we need to monitor food waste

- **Policy commitments**
 - **SDG 12.3**
 - **Circular Economy Package**
- **EU data on food loss and waste are inadequate**
- **We need these data for**
 - **Compare policy efficiency between MS**
 - **Report against SDGs and other international targets**
 - **"Numbers lead to action"**

Methodology – basic questions

- **What do we want to monitor:**
 - describe (define) what material in food supply chain is regarded as food waste (and what is not)
 - define the sectors and type of data sought
 - who are the users?
- **How do we want to monitor**
 - which quantification methods should be used
 - Who should conduct the monitoring
 - frequency of data collection

Guiding principles on monitoring

- Fit existing regulatory framework
- Focus on resource efficiency of whole food supply chain – not only on food understood as product ready to eat
- Simple to use
- Using actual measurement vs modelling (as far as possible)
- Use to the extent possible existing reporting and policy frameworks (e.g. ESTAT waste reporting, Waste Prevention Programmes)

Food waste and food loss

- The Commission priority is to address food waste – as required in art 9 of amended Waste Framework Directive
- The issue of food loss - as an issue outside the scope of waste policy - is planned to be discussed separately within the Platform (including global actors).

Content of the presentation

1. What is food waste

- **Quick review of existing concepts of food waste and loss**
- **Understanding of food waste in EU Regulatory Framework**
- **Food waste to be monitored in food supply chain (sector by sector)**

2. How to monitor food waste

3. What's next

Quick review of existing concepts of food waste and food loss

Concept of food waste and food loss

1. *"Preparatory Study on Food Waste in EU-27"*
(DG ENV, 2010)
2. *"Global food losses and food waste"* (FAO, 2011)
3. *"Food Wastage Footprint - Impacts on natural resources"* (FAO, 2013)
4. *"FUSIONS definitional framework for food waste"*
(FUSIONS 2014)

FUSIONS definition ...and attempt of its implementation

FUSIONS definition

"Food and inedible parts of food removed from the food supply chain" to be recovered or disposed (including - composted, crops ploughed in/not harvested, anaerobic digestion, bioenergy production, co-generation, incineration, disposal to sewer, landfill or discarded to sea).

2014 Commission Proposal

"food waste" means food (including inedible parts) lost from the food supply chain, not including food diverted to material uses such as bio-based products, animal feed, or sent for redistribution;

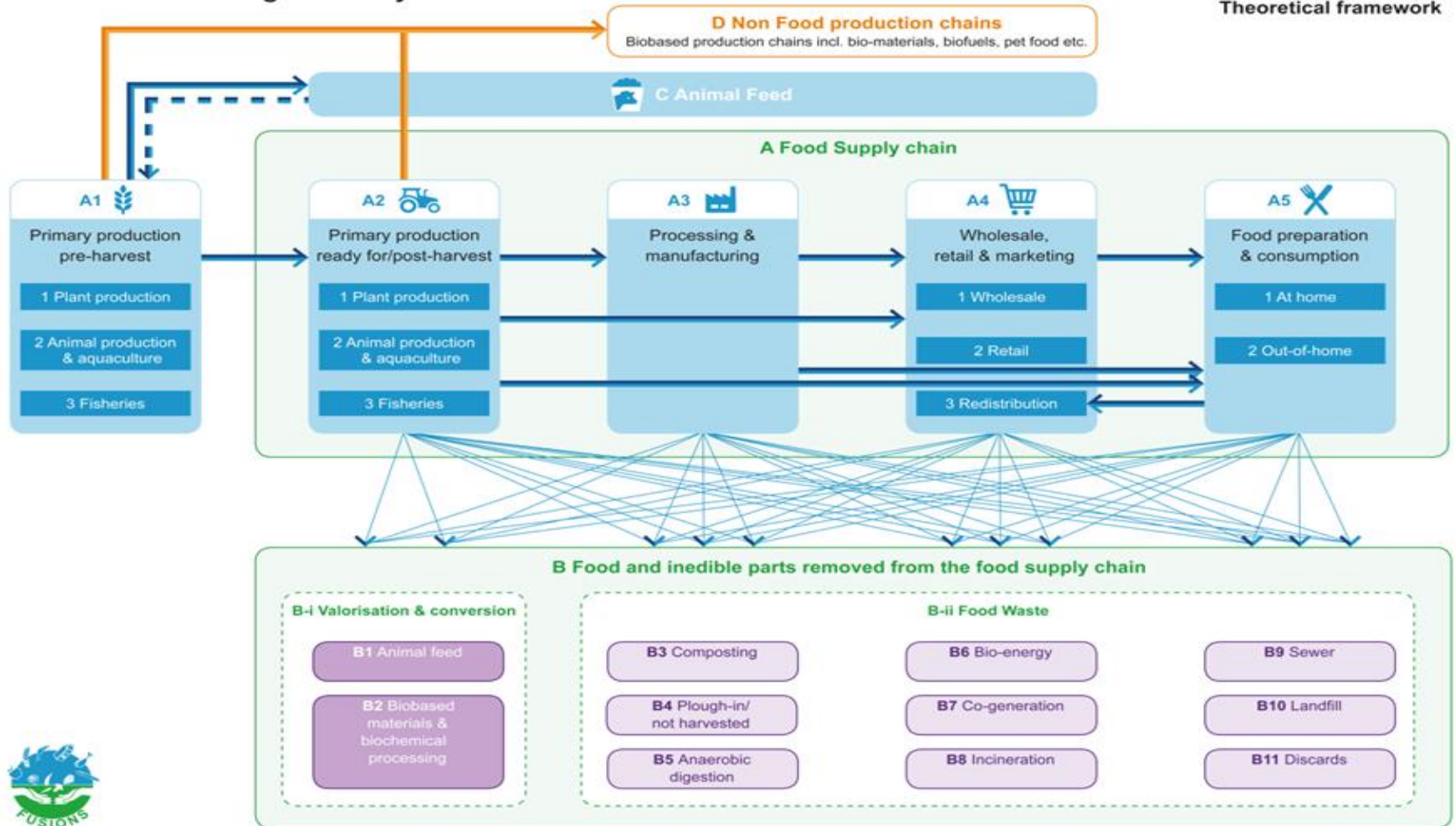


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Fusions definitional framework

Resource flows in Agri-Food System

FUSIONS Theoretical framework





Understanding of food waste in EU Regulatory Framework

Existing legislative framework (1)

General Food Law (2002/178/EC) – definition of food

art 2.

Food means any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans (...)

Food shall not include:

(...)

(b) live animals unless they are prepared for placing on the market for human consumption;

(c) plants prior to harvesting;

(...)

Existing legislative framework (2)

Waste Framework Directive (2008/98/EC) –
definition of waste

*Art 3. "Waste" means any substance or object
which the holder discards or intends or is
required to discard*

Waste Framework Directive – scope (1)

Art 2

1. The following shall be **excluded from the scope** of this Directive:

(...)

(f) faecal matter, (...), straw and other natural non-hazardous **agricultural or forestry material used in farming, forestry or for the production of energy from such biomass** (...)

Waste Framework Directive – scope (2)

Art. 2

2. The following shall be **excluded from the scope** of this Directive to the extent that they are covered by other Community legislation:

(...)

(b) **animal by-products** including processed products covered by Regulation (EC) No 1774/2002, except those which are destined for incineration, landfilling or use in a biogas or composting plant;

(c) carcasses of animals that have died other than by being slaughtered, including animals killed to eradicate epizootic diseases, and that are disposed of in accordance with Regulation (EC) No 1774/2002;

FUSIONS definition + EU regulatory framework =

Food waste is food (as defined in GFL, including inedible parts) which the holder (FBO or household) discards or intends or is required to discard.

*or: **Food waste is food which becomes waste***

Food waste to be monitored as specified in Waste Framework Directive should cover only food waste within the scope of WFD. Hence reporting of primary production will be very limited.

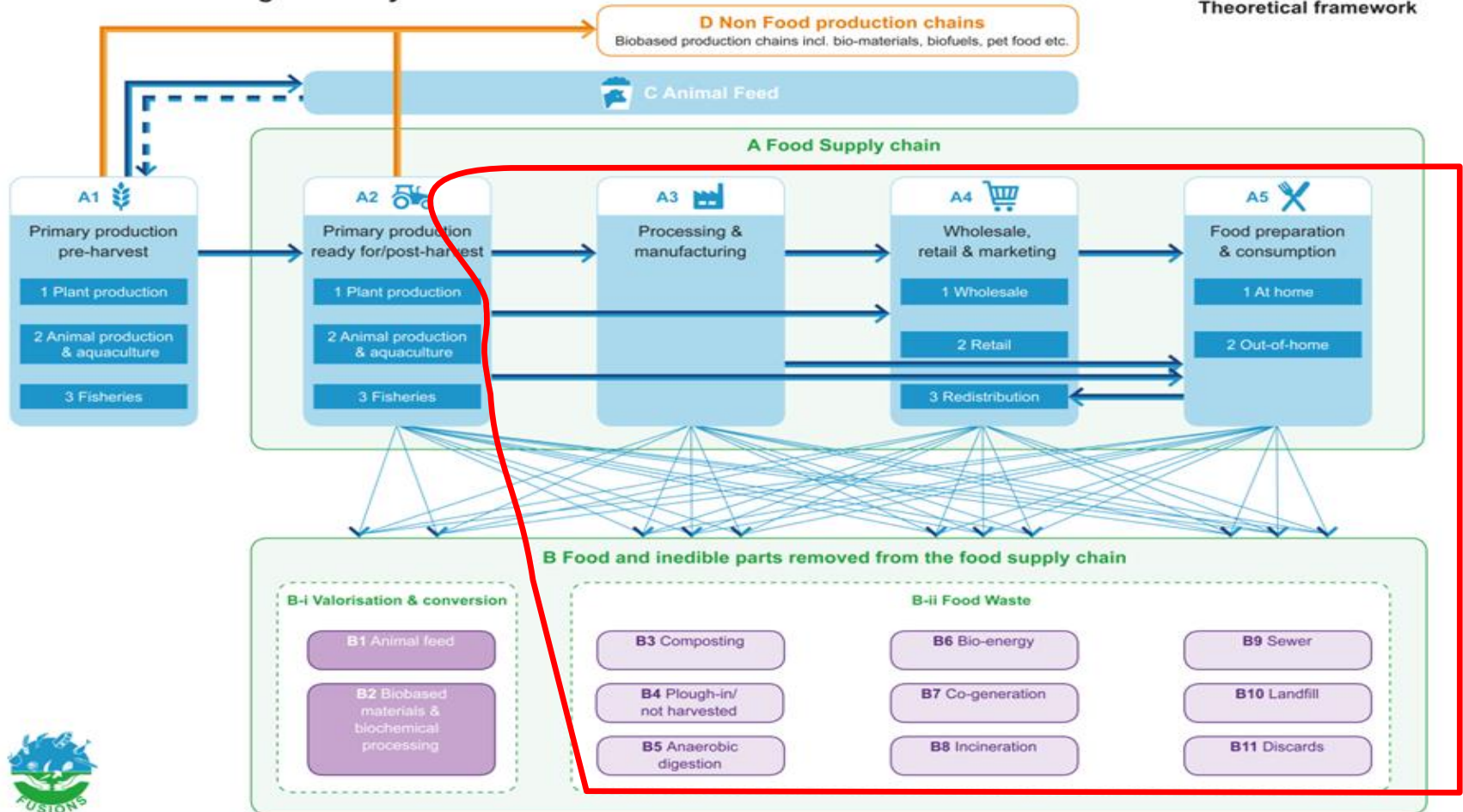


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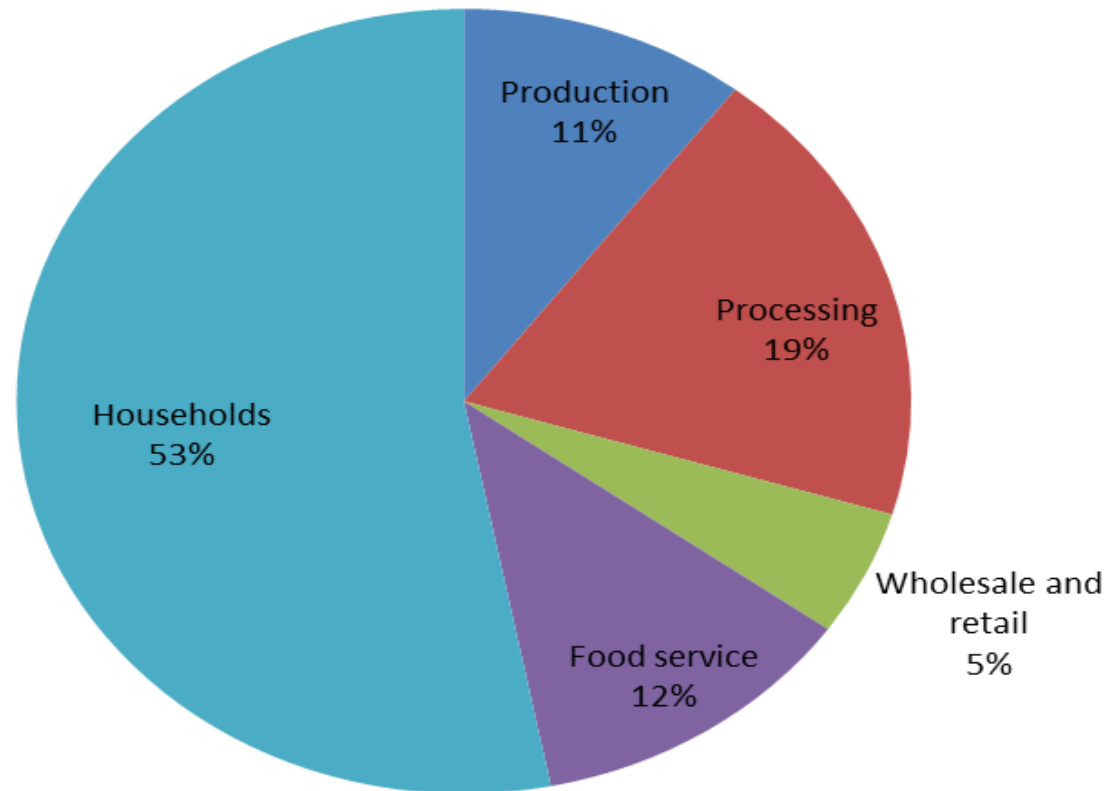
Food waste to be monitored in food supply chain (sector by sector)

Sectors of food supply chain (as referred to in new art 9 of WFD)

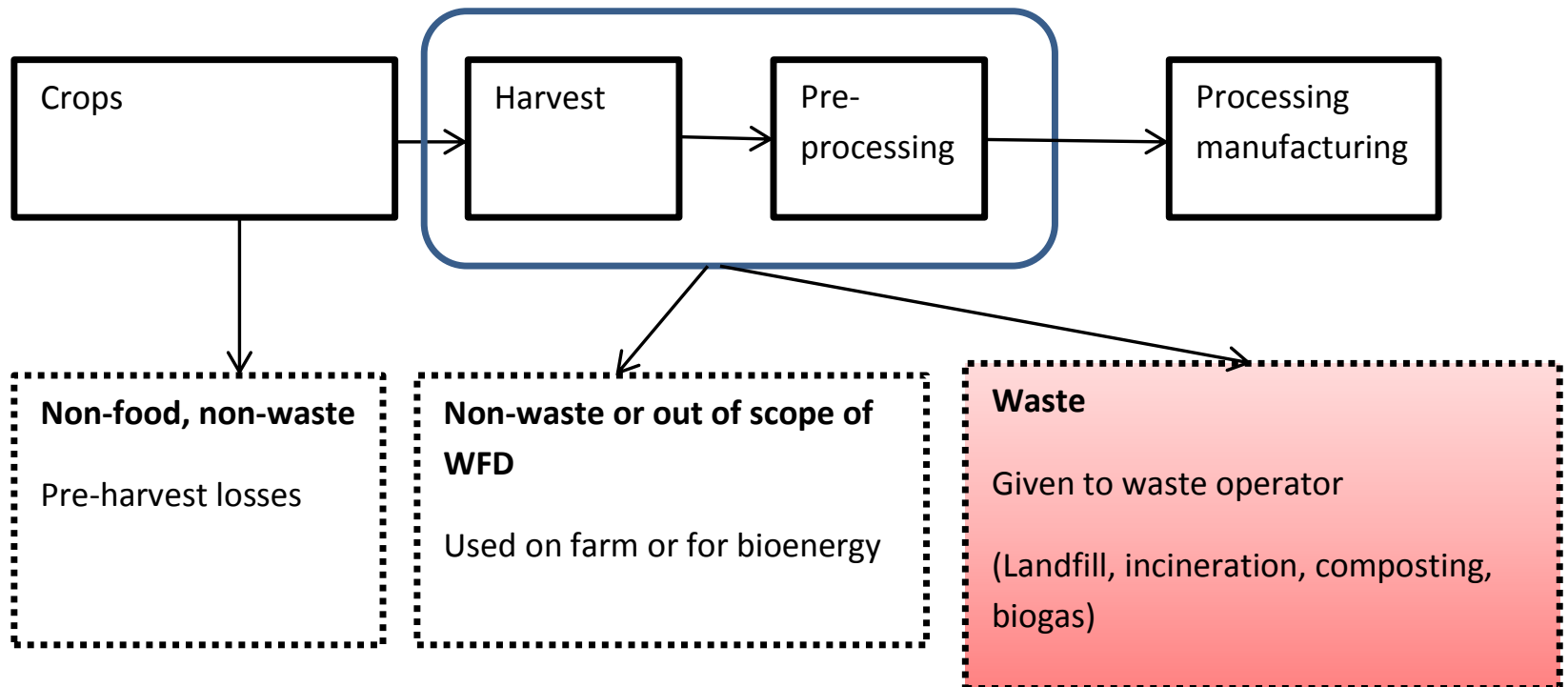
1. Primary production
2. Processing and manufacturing
3. Distribution
4. Food services
5. Households

Important: As each sector requires different policy approach they should be monitored separately.

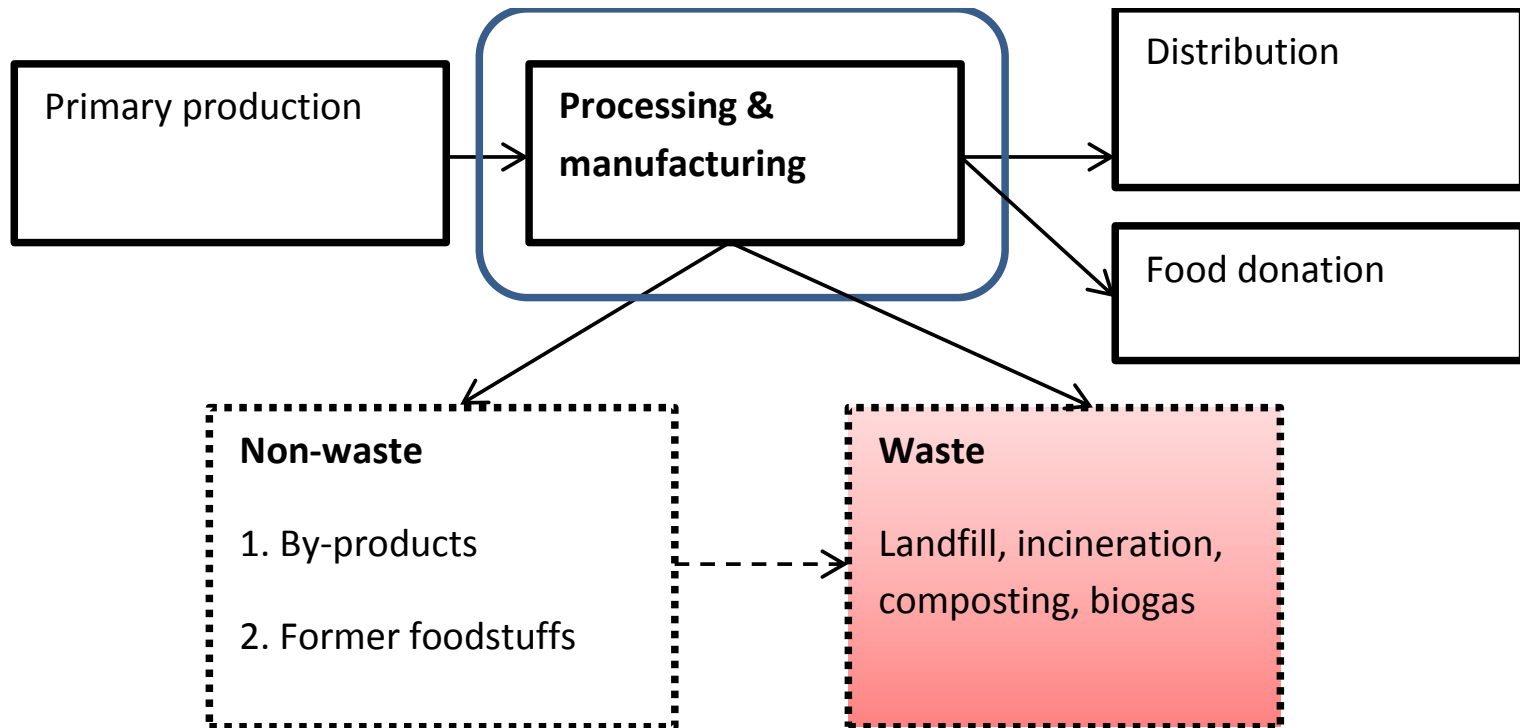
Food waste in EU-28 by sector (FUSIONS definition, 2012 data)



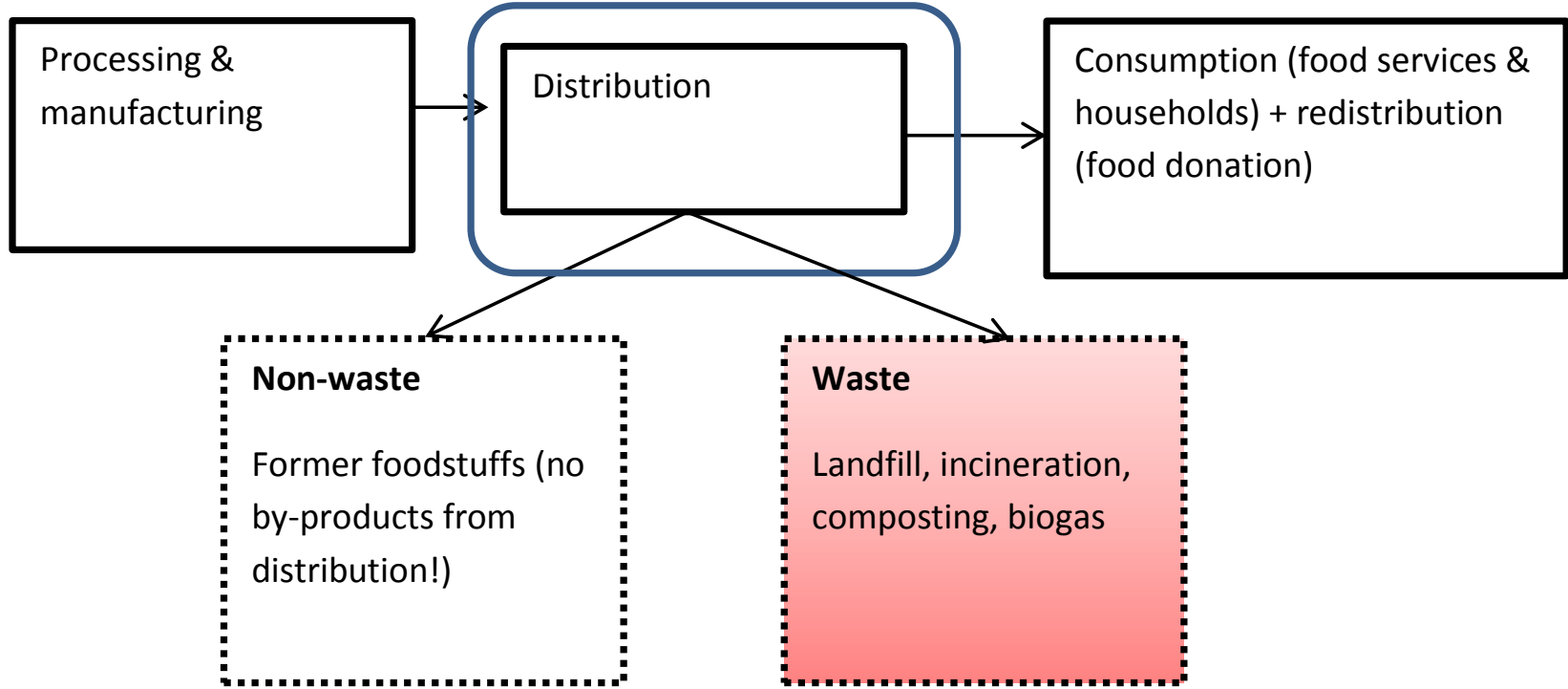
Step 1 – Primary production



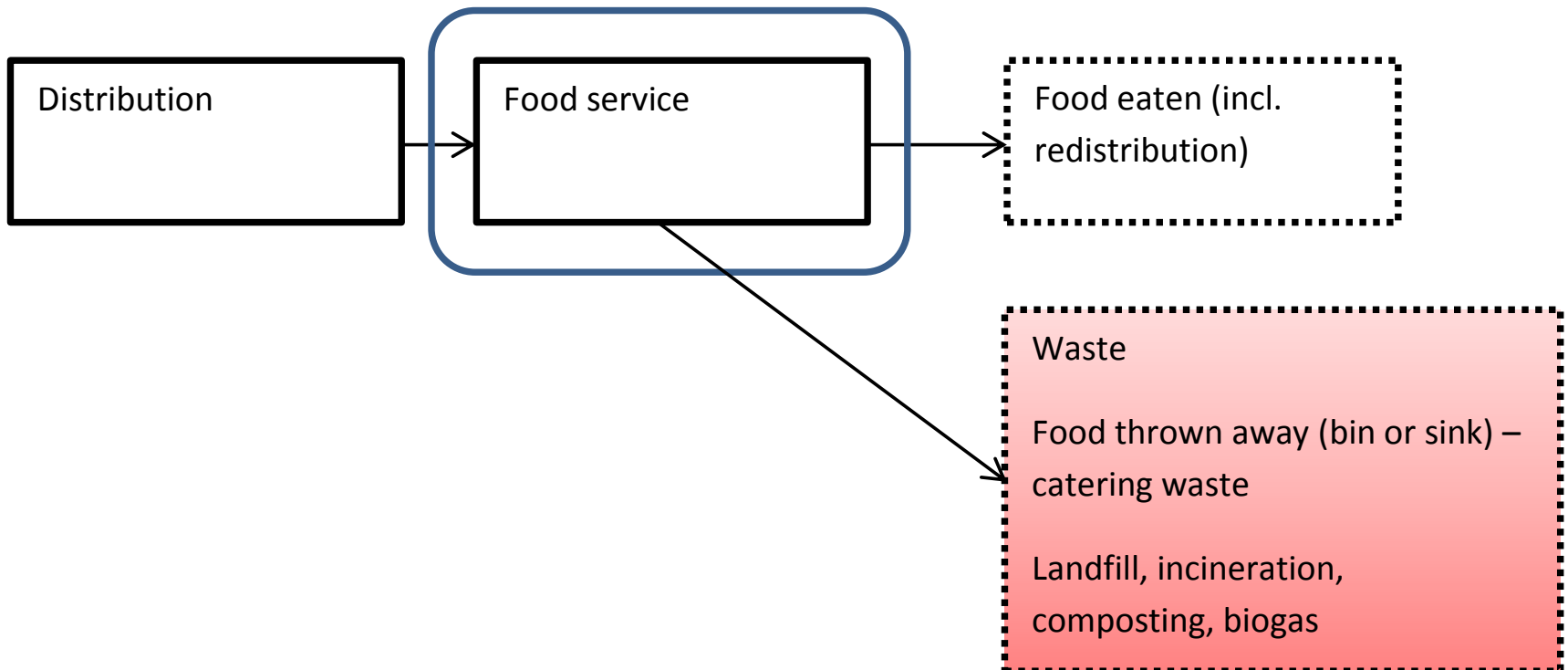
Step 2 – manufacturing and processing



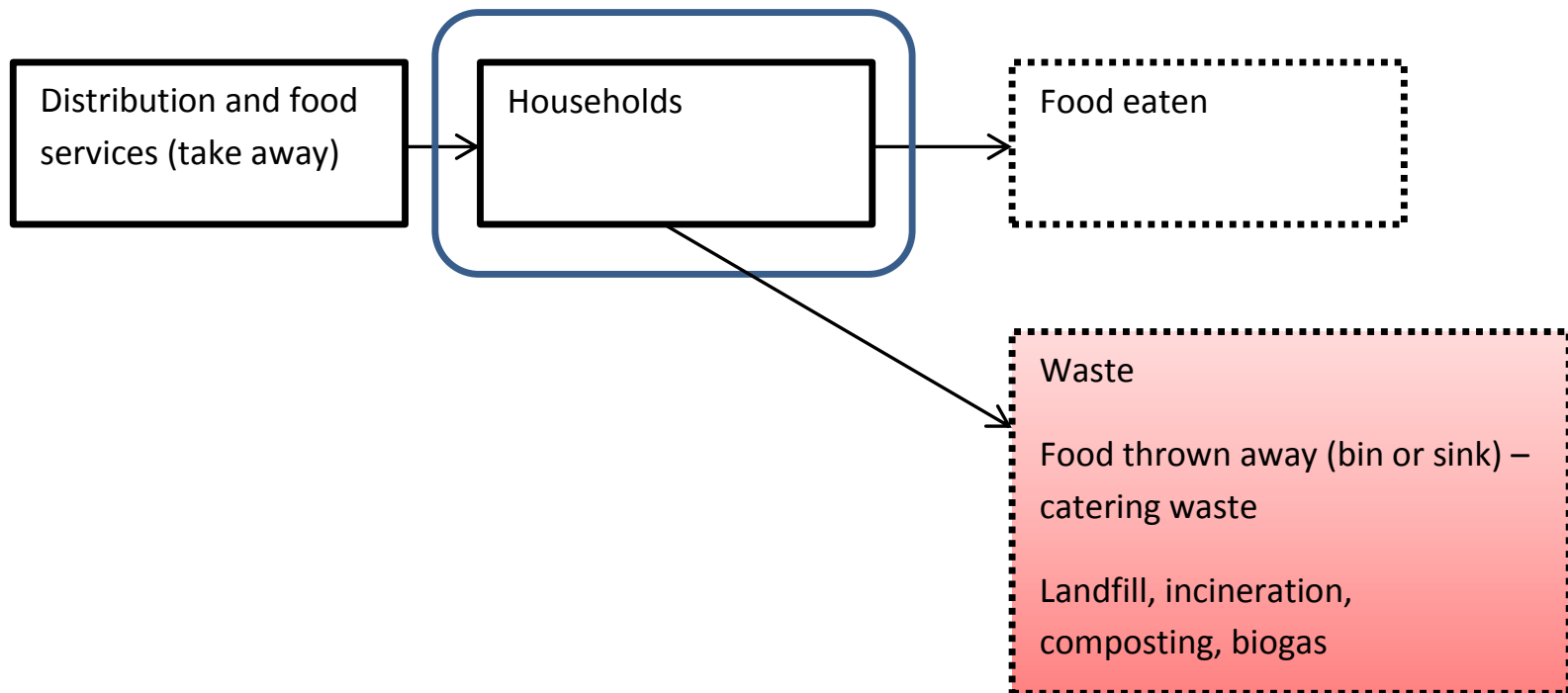
Step 3 – retail and distribution



Step 4 – food services



Step 5 - Households



Issues for discussion:

- **Should this division by sectors be further developed for quantification? how?**
- **How to define boundaries of each sector (if possible in relation to existing data and statistics)?**
- **Shall non-waste streams be also monitored (voluntarily)?**

How to monitor food waste?

Monitoring – main question:

Shall the quantification methods be defined or left for Member States to decide?

See requirements of monitoring of waste in general

Waste Statistics Regulation, Art 3. Collection of data

1. Member States shall acquire the data by means either of:

- surveys,*
- administrative or other sources, such as the reporting obligations under Community legislation on waste management,*
- statistical estimation procedures on the basis of samples or waste-related estimators, or*
- a combination of these means.*

How to monitor food waste – some thoughts

- Whatever method will be used by Member State it will be necessary to provide more detailed explanation regarding method of data collection
- **FUSIONS manual** and **FLW Protocol** include a lot of practical info on measuring and quantifying food waste at MS level (Manual) and organisation level (Protocol)
- Obligation of separate collection of bio-waste may significantly improve monitoring of food waste
- We intend to use the Platform to exchange experiences on monitoring and help us to further develop methodology
- The development of datasets comparable between MS will be a long term process with a lot to learn in practice



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Next steps

Legislative process

WFD is subject to normal legislative procedure. Hence discussion on **definitions, obligations to monitor, waste prevention targets** will continue in the Council and Parliament.

Details of monitoring – e.g. boundaries of the sectors, dealing with problematic streams (e.g. liquid waste); specific measurement for policy needs (e.g. edible/inedible) – **are to be agreed with MS in implementing act.**

SDG and indicators

Target 12.3: *"by 2030 halve per capita global food waste at the **retail and consumer level**, and reduce food losses along production and supply chains including post-harvest losses"*

No clarity yet of indicator to monitor this SDG target. Global Food Loss Indicator (GFLI) is most often mentioned but has some deficiencies.

EU indicator to be developed

Indicative timeline of monitoring

End of 2017 - Adoption of amended Waste Framework Directive

End of 2018 - Adoption of implementing act establishing a common methodology, including minimum quality requirements.

Jan 2020 - Dec 2021 - First reporting period

Role of Platform

All the elements from previous slide should also be discussed in the Platform.

Moreover, we intend Platform to discuss issues beyond Waste Framework Directive – e.g.:

- compatibility with SDG and any other reporting
- how to monitor food losses?
- shall we monitor non-waste food use e.g.
 - food redistribution?
 - food to feed (incl. former foodstuffs)?
- exchange of practical experiences



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Thank you for your attention

Quick review of existing concepts of food waste and food loss

"Preparatory Study on Food Waste in EU -27" (DG ENV, 2010)

Food waste is composed of raw or cooked food materials and includes food loss before, during or after meal preparation in the household, as well as food discarded in the process of manufacturing, distribution, retail and food service activities. It comprises materials such as vegetable peelings, meat trimmings, and spoiled or excess ingredients or prepared food as well as bones, carcasses and organs.

"Global food losses and food waste" (FAO, 2011)

Food losses refer to the decrease in ***edible food mass*** throughout the part of the supply chain that specifically leads to edible food for human consumption. Food losses take place at production, postharvest and processing stages in the food supply chain (Parfitt et al., 2010). Food losses occurring at the end of the food chain (retail and final consumption) are rather called "***food waste***", which relates to ***retailers' and consumers' behavior***. (Parfitt et al., 2010).

"Food Wastage Footprint - Impacts on natural resources" (FAO, 2013)

Food loss refers to a **decrease in mass (dry matter) or nutritional value (quality) of food** that was originally intended for human consumption. These losses are mainly caused by inefficiencies in the food supply chains, such as poor infrastructure and logistics, lack of technology, insufficient skills, knowledge and management capacity of supply chain actors, and lack of access to markets. In addition, natural disasters play a role.

Food waste refers to food appropriate for human consumption being discarded, whether or not after it is kept beyond its expiry date or left to spoil. Often this is because food has spoiled but it can be for other reasons such as oversupply due to markets, or individual consumer shopping/eating habits.

Food wastage refers to any food lost by deterioration or waste. Thus, the term "wastage" encompasses both food loss and food waste.

FUSIONS definition & withdrawn COM proposal

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